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09/611,229	07/06/2000	Tomonari Sendai	Q58683	4828

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EXAMINER

SMITH, RUTH S

ART UNIT PAPER NUMBER

3737

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/611,229

Applicant(s)

SENDAI ET AL.

Examiner

Ruth S. Smith

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7, 10, 19, 21-25, 27, 29-33, 37-41, 43, 44, 47, 51, 52, 57, 61 and 62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 10, 19, 21-25, 27, 29-33, 37-41, 43, 44, 47, 51, 52, 57, 61 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Upon reconsideration by the examiner and in view of the newly cited prior art references, the finality of the previous office action has been withdrawn and the following new grounds of rejection have been set forth.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to disclose that the array type laser is also either a broad area type laser or a surface emission type laser.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 7,10,19,21-25,27,29-33,37-41,43,44,47,51,52,57,61,62 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,433,345. Although the conflicting claims are not identical, they are not patentably distinct from each other because the elimination of the temperature controlling means involves an obvious broadening of the scope of the claimed invention. The use of pulsed laser emission is known and the manner in which the pulses are applied would have been obvious to one skilled in the art.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7,47,57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Nakamura et al. Applicant discloses that it is known to use a diagnostic instrument for acquiring fluorescence emitted from a sample by irradiation of excitation light to obtain information regarding the sample. Applicant further discloses that the prior art instrument is incorporated into an endoscope, colposcope etc. The prior art device includes visible light irradiation means and means for forming an image from this light. The excitation light is used during a period when the visible light is not being used. Tischler et al disclose the use of a GaN-based laser that can have application as an excitation source for spectroscopic analysis (Column 7, lines 38-45). Tischler et al disclose that all possible crystal forms are included. It would have been obvious to one skilled in the art to have modified the prior art device disclosed by applicant such that it includes the laser disclosed by Tischler et al. Such a modification merely involves the substitution of one well known type of excitation source in a spectroscopic system for another.

Nakamura et al disclose the use of a GaN based semiconductor laser wherein the active layer of the laser has InGaN/InGaN quantum cell structure. It would have been obvious to one skilled in the art to have further modified the prior art device such that the GaN based semiconductor laser has an active layer of the laser has InGaN/InGaN quantum cell structure. Such a modification merely involves the substitution of one well known type of GaN-based semiconductor laser for another.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Nakamura et al as applied to claim 7 above, and further in view of Studholme et al. Studholme et al disclose a fluorescence observing device. Column 8, lines 27-60 refer to how the laser is driven in accordance with the limitations set forth in claim 10. It would have been obvious to one skilled in the art to have further modified the prior art device such that the laser is driven as disclosed by Studholme et al. Such a modification merely involves the substitution of one known manner in which to drive the laser during operation for another.

Claims 23,39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Nakamura et al as applied to claim 7 above, and further in view of Okazaki. Okazaki discloses a semiconductor GaN-based laser. Okazaki discloses that it is known to construct such lasers as broad area type lasers or array type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a broad area type of laser or an array type laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Nakamura et al as applied to claim 7 above, and further in view of Sugawara et al. Sugawara et al disclose a semiconductor GaN-based laser. Sugawara et al disclose that it is known to construct

such lasers as surface emission type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a surface emission type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claims 19,21,22,37,38, 51,61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Okazaki. Applicant discloses that it is known to use a diagnostic instrument for acquiring fluorescence emitted from a sample by irradiation of excitation light to obtain information regarding the sample. Applicant further discloses that the prior art instrument is incorporated into an endoscope, colposcope etc. The prior art device includes visible light irradiation means and means for forming an image from this light. The excitation light is used during a period when the visible light is not being used. Tischler et al disclose the use of a GaN-based laser that can have application as an excitation source for spectroscopic analysis (Column 7, lines 38-45). Tischler et al disclose that all possible crystal forms are included. It would have been obvious to one skilled in the art to have modified the prior art device disclosed by applicant such that it includes the laser disclosed by Tischler et al. Such a modification merely involves the substitution of one well known type of excitation source in a spectroscopic system for another. It is well known in that art to use either pulsed excitation or continuous excitation and the choice of either would have been obvious. Okazaki discloses a semiconductor GaN-based laser. Okazaki discloses that it is known to construct such lasers as broad area type lasers or as array type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is broad area type laser or an array type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Okazaki as applied to

claim 19 above, and further in view of Osinski et al. Osinski et al disclose that it is known to provide broad area semiconductor lasers in the form of array type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a broad area array type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claims 24-25,40,41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al, Studholme et al and Okazaki. Applicant discloses that it is known to use a diagnostic instrument for acquiring fluorescence emitted from a sample by irradiation of excitation light to obtain information regarding the sample. Applicant further discloses that the prior art instrument is incorporated into an endoscope, colposcope etc. The prior art device includes visible light irradiation means and means for forming an image from this light. The excitation light is used during a period when the visible light is not being used. Tischler et al disclose the use of a GaN-based laser that can have application as an excitation source for spectroscopic analysis (Column 7, lines 38-45). Tischler et al disclose that all possible crystal forms are included. It would have been obvious to one skilled in the art to have modified the prior art device disclosed by applicant such that it includes the laser disclosed by Tischler et al. Such a modification merely involves the substitution of one well known type of excitation source in a spectroscopic system for another. It is well known in that art to use either pulsed excitation or continuous excitation and the choice of either would have been obvious. Studholme et al disclose a fluorescence observing device. Column 8, lines 27-60 refer to how the laser is driven in accordance with the limitations set forth in the claims. It would have been obvious to one skilled in the art to have further modified the prior art device such that the laser is driven as disclosed by Studholme et al. Such a modification merely involves the substitution of one known manner in which to drive the laser during operation for another. Okazaki discloses a semiconductor GaN-based laser. Okazaki discloses that it is known to construct such lasers as broad area type lasers or array type lasers. It

would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a broad area type of laser or an array type laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claims 27,29,30,52,62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Sugawara et al. Applicant discloses that it is known to use a diagnostic instrument for acquiring fluorescence emitted from a sample by irradiation of excitation light to obtain information regarding the sample. Applicant further discloses that the prior art instrument is incorporated into an endoscope, colposcope etc. The prior art device includes visible light irradiation means and means for forming an image from this light. The excitation light is used during a period when the visible light is not being used. Tischler et al disclose the use of a GaN-based laser that can have application as an excitation source for spectroscopic analysis (Column 7, lines 38-45). Tischler et al disclose that all possible crystal forms are included. It would have been obvious to one skilled in the art to have modified the prior art device disclosed by applicant such that it includes the laser disclosed by Tischler et al. Such a modification merely involves the substitution of one well known type of excitation source in a spectroscopic system for another. It is well known in that art to use either pulsed excitation or continuous excitation and the choice of either would have been obvious. Sugawara et al disclose a semiconductor GaN-based laser. Sugawara et al disclose that it is known to construct such lasers as surface emission type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a surface emission type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al and Sugawara et al as applied to claim 27 above, and further in view of Nakayama et al. Nakayama et al



disclose that it is known to provide surface emission semiconductor lasers in the form of array type lasers. It would have been obvious to one skilled in the art to have further modified the prior art device such that the semiconductor laser is a surface emission array type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Tischler et al, Studholme et al and Sugawara et al. Applicant discloses that it is known to use a diagnostic instrument for acquiring fluorescence emitted from a sample by irradiation of excitation light to obtain information regarding the sample. Applicant further discloses that the prior art instrument is incorporated into an endoscope, colposcope etc. The prior art device includes visible light irradiation means and means for forming an image from this light. The excitation light is used during a period when the visible light is not being used. Tischler et al disclose the use of a GaN-based laser that can have application as an excitation source for spectroscopic analysis (Column 7, lines 38-45). Tischler et al disclose that all possible crystal forms are included. It would have been obvious to one skilled in the art to have modified the prior art device disclosed by applicant such that it includes the laser disclosed by Tischler et al. Such a modification merely involves the substitution of one well known type of excitation source in a spectroscopic system for another. It is well known in that art to use either pulsed excitation or continuous excitation and the choice of either would have been obvious. Studholme et al disclose a fluorescence observing device. Column 8, lines 27-60 refer to how the laser is driven in accordance with the limitations set forth in the claims. It would have been obvious to one skilled in the art to have further modified the prior art device such that the laser is driven as disclosed by Studholme et al. Such a modification merely involves the substitution of one known manner in which to drive the laser during operation for another. Sugawara et al disclose a semiconductor GaN-based laser. Sugawara et al disclose that it is known to construct such lasers as surface emission type lasers. It would have been obvious to one skilled in the art to have further modified the prior art

device such that the semiconductor laser is a surface emission type of laser. Such a modification merely involves the selection of one well known type of semiconductor laser configuration.

***Response to Arguments***

Applicant's arguments with respect to claims 7,10,19,21-25,27,29-33,37-41,43,44,47,51,52,57,61,62 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S. Smith whose telephone number is 571-272-4745. The examiner can normally be reached on M-F 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ruth S. Smith  
Primary Examiner  
Art Unit 3737

RSS